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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/709,514	11/13/2000	Kiyomi Tamagawa	Q61700	4495

7590 10/23/2003

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EXAMINER

SUKHAPHADHANA, CHRISTOPHER T

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/709,514

Applicant(s)

TAMAGAWA ET AL.

Examiner

Christopher T. Sukhaphadhana

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-8,10,11,13 and 15 is/are rejected.
- 7) ☒ Claim(s) 3,5,9,12 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because the spelling of "EXTRCT" in (a11) of **Fig 7** should be corrected. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. **Figure 19** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: Consider inserting the expression --between-- between "association M" and "the color data" on **page 3, line 2**. Consider replacing the reference to "table 1" on **page 29, line 25**, with --table T1--.
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 4 and 13** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. In regards to **claims 4 and 13**, these claims make reference to a “second evaluation value” without making prior reference to a ‘first evaluation value’ in the context of each claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. **Claims 1-2, 6-7, 8, 10-11, 15** are rejected under 35 U.S.C. 102(e) as being anticipated by Schwartz (U.S. Patent 6,075,888, newly cited, “Schwartz”).

9. In regards to **claim 1**, Schwartz discloses a profile producing method (Fig 2) of producing a profile (ref no 70, Fig 2) defining an association between a first color data

representative of coordinates on a predetermined first color space and a second color data representative of coordinates on a second color space independent of output devices, for colors appearing on a color image outputted from an output device for outputting the color image in accordance with image data including the first color data, said profile producing method comprising: a color association definition obtaining step (col 4, lines 36-61) of obtaining a color association definition, in which distribution of coordinate points is relatively rough (col 4, line 40), defining an association between the first color data representative of coordinates on the first color space and the second color data representative of coordinates on the second color space; a profile selection step (col 4, lines 23) of selecting a first profile from among a plurality of profiles, in which distribution of coordinate points is relatively close as compared with the color association definition obtained in said color association definition obtaining step, defining an association between the first color data representative of coordinates on the first color space and the second color data representative of coordinates on the second color space; and a profile producing step (col 5, lines 18-24) of producing a second profile defining an association between the first color data representative of coordinates on the first color space and the second color data representative of coordinates on the second color space, by correcting the first profile (col 5, lines 15-18) selected in said profile selection step in accordance with the color association definition obtained in said color association definition obtaining step.

10. In regards to **claim 2**, Schwartz further discloses the color association definition obtaining step causing said output device to output a color chart (col 4, lines 44-48) composed of a plurality of color patches associated with coordinate points more roughly distributed as compared with a distribution of the coordinate points defined in association by said first profile,

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on the first color space, and measures the plurality of color patches (col 4, line 63) constituting the color chart outputted from said output device to determine each of the second color data representative of each of the coordinates on the second color space, on each color patch, so that a color association definition, defining an association between the first color data representative of the coordinates on the first color space, wherein a distribution of coordinate points is more rough as compared with the first profile, and the second color data representative of coordinates on the second color space, is determined (col 5, lines 15-17, tuning transform F).

11. In regards to **claim 6**, Schwartz discloses a profile producing method (Fig 2) of producing a profile (ref no 70, Fig 2) defining an association between a first color data representative of coordinates on a predetermined first color space and a second color space data representative of coordinates on a second color space independent of output devices, for colors appearing on a color image outputted from an output device for outputting the color image in accordance with image data including the first color data, said profile producing method comprising: a profile obtaining step (col 4, line 23) of obtaining a first profile defining an association between the first color data representative of coordinates on the first color space and the second color data representative of coordinates on the second color space; a color association definition obtaining step (col 4, lines 36-61) of causing said output device to output a color chart (col 4, lines 44-48) including a plurality of color patches associated with coordinate points more roughly distributed (col 4, line 40) as compared with a distribution of the coordinate points defined in association by said first profile, on the first color space, and measuring (col 4, line 63), of the plurality of color patches constituting the color chart outputted from said output device, the plurality of color patches associated with coordinate points more roughly distributed as

compared with a distribution of the coordinate points defined in association by said first profile, to determine each of the second color data representative of each of the coordinates on the second color space, on each color patch, so that a color association definition, defining an association between the first color data representative of the coordinates on the first color space, wherein a distribution of coordinate points is more rough as compared with the first profile, and the second color data representative of coordinates on the second color space, is determined (col 5, lines 15-17, tuning transform F); a curve arithmetic operating step (col 6, lines 28-30, and col 7, lines 1-3) of performing on each combination of each of a plurality of color axes of the first color space and each of a plurality of color axes of the second color space an arithmetic operation for determining a curve formed through coupling relatively small number of points extracted from the color association definition, which are plotted on a plane represented by a color axis of the first color space and a color axis of the second color space, while reflecting a non-linearity of a curve consisting of a relatively large number of points extracted from the first profile, which are plotted on the plane; and a profile producing step (col 5, lines 18-24) of producing a second profile defining an association between the first color data representative of coordinates on the first color space and the second color data representative of coordinates on the second color space in accordance with an assembly of curves formed through coupling points extracted from the color association definition obtained in said color association definition obtaining step (col 5, lines 15-18).

12. In regards to **claim 7**, Schwartz further discloses the curve arithmetic operating step modifying (col 5, lines 37-40, col 7, lines 1-3, and the paragraph bridging col 12-13) on said each combination the curve consisting of a relatively large number of points extracted from the

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first profile in such a manner that relatively small number of points extracted from the color association definition are coupled with one another in accordance with a ratio of the second color data extracted from the color association definition, which corresponds to an identical first color data, and the second color data extracted from the first profile, so that an arithmetic operation for determining a curve formed through coupling relatively small number of points to one another is executed.

13. In regards to **claim 8**, Schwartz further discloses in col 5, lines 40-50, the curve arithmetic operating step performing on said each combination a linear interpolation for the ratios associated with a plurality of first color data to determine each ratio associated with each value of the first color data, so that an arithmetic operation for moving points constituting a curve consisting of relatively large number of points extracted from the first profile is executed in accordance with the ratio.

14. In regards to **claim 10**, Schwartz further discloses in the paragraph bridging col 13-14 and col 4, lines 36-61, the first color space being defined by color axes of four colors of cyan C, magenta M, yellow Y and black K, and said color association definition obtaining step adopts, as said color chart, a color chart composed of color patches corresponding to coordinate points not less than three points, which are designated on each axis coupling vertexes with one another of a cubic area capable of representing a color by said output device, of each subspace where the first color space is divided into a plurality of sub-spaces defined by color axes of three colors of C, M, Y, which are associated with a plurality of discrete coordinate points on a color axis of K color, respectively, and causes said output device to output said color chart.

15. In regards to **claim 11**, all the elements set forth in this claim have been addressed in the argument of claim 1.

16. In regards to **claim 15**, Schwartz further discloses the profile selection section comprising a display (ref no 12, Fig 1) for displaying a color association definition obtained by said color association definition obtaining section and a graph (Figs 5) showing a change of dot gain quantity of said plurality of profiles, and an operating section (col 4, lines 21-35) for selecting a desired profile from among said plurality of profiles as the first profile, and wherein said profile selection section selects the first profile in accordance with an operation of said operating section.

Allowable Subject Matter

17. **Claims 3, 5, 9, 12, 14** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. **Claims 4, 13** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the 35 USC 112, second paragraph, rejection in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **Vigneau et al (U.S. Patent 6,008,907)** discloses a printer calibration including printing a color test pattern, determining a solution set of correction values, and adding to the

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color transform the corresponding solution set for each color channel of the printer. **Weichmann et al (U.S. Patent 6,580,524 B1)** discloses a method for calibrating a printing machine which uses a profile which corresponds precisely with the current machine condition. **Kumada et al (U.S. Publication 2001/0043376 A1)** discloses an image processing method wherein it is possible to preview an image that takes into account a change in the color reproduction characteristics of an output device with the passage of time.

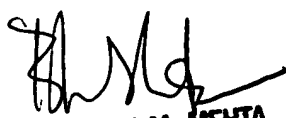
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher T. Sukhaphadhana whose telephone number is 703-306-4148. The examiner can normally be reached on 9a-4p M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.

CTS

CTS


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